

CORPORATION

February 25, 1983

NAL-199

Mr. Russel H. Wyer, Director
Hazardous Site Control Division
Office of Emergency and Remedial Response
WH-548-E, Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Federal Express # 621572512

Re: Proposed National Priorities List --- Harbor Island, Seattle, Washington ---Comments
and Request Submitted by RSR Corporation on Behalf of its Subsidiary, Quemetco,
Inc., which is Located on Harbor Island

Mr. Wyler:

Please accept this transmittal as formal comments regarding the inclusion of Harbor Island,
Seattle, Washington on the Proposed National Priorities List, i.e., "Superfund List".

In view of its extensive knowledge and background concerning lead in general, along with the
rulemaking of the ambient air lead standard, the rulemaking of the occupational exposure to
lead standard, and the setting of Harbor Island, RSR Corporation has reviewed all public
documents relating to the listing of Harbor Island on the PNPL that were obtainable in a
timely manner so as to respond to the EPA's request for comments published December 30,
1982 and due February 28, 1983.

Much to RSR's dismay, it is apparent that the EPA reviewer responsible for the Harbor
Island HRS documents spent considerably less than sixty calendar days collecting informa-
tion and informing himself before deciding that Harbor Island poses a significant risk to
human health and environment. In view of the connotations associated with Superfund listing,
RSR Corporation finds the EPA's review inadequate. RSR Corporation's review resulted in a
conclusion that Harbor Island was placed on the PNPL in error, due to the very limited, less
than cursory, review provided by the EPA in conjunction with incorrect and misleading
assumptions made by the EPA reviewer.

Therefore, RSR Corporation must request that Harbor Island be removed from consideration
as a National Priority Site, that it be removed from the Proposed National Priorities List,
and that it be excluded from the Final National Priorities List.

Please find the following items enclosed for your review of this matter:

- (1) A copy of the public record concerning the listing of Harbor Island on the
PNPL;

USEPA SF



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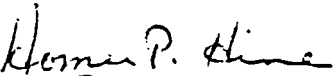
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- (2) Copies of RSR's Freedom of Information Act request of the EPA and the EPA's responses; and
- (3) RSR's background information summary regarding the listing of Harbor Island on the FIVE, including comments and RRS scoring.

RSR Corporation staff are available to discuss these comments in more detail with you, if you so desire. If you have any questions regarding this transmittal, please do not hesitate to contact me at 214-631-6070.

Respectfully submitted,


Homer P. Hine
Chief Chemist/Assistant Manager
Technical Services Department
RSR Corporation

cc: Gerald A. Dumas
Manager
Technical Services Department
RSR Corporation

Enclosures

COMMENTS AND ASSESSMENTS OF
HARBOR ISLAND, SEATTLE, WASHINGTON
HAZARD RANKING SYSTEM (HRS) SCORES
PREPARED BY RSR CORPORATION ON BEHALF OF QUEMETCO, INC.

The directions for use of the HRS instructs that the use of the HRS requires considerable information about the facility (Harbor Island) and the hazardous substance present (lead).

A review by RSR Corporation, of the HRS prepared by the EPA, does not indicate considerable information about lead and the development of Harbor Island was collected by the reviewer. The public record indicates the reviewer contacted only two groups to "document" the information used in preparing the HRS.

The reviewer did not contact the secondary lead smelter on the island (Quemetco, Inc.), nor is it apparent if the reviewer contacted the many other lead sources located on the island. Also, it is not apparent if the reviewer contacted the Washington Industrial Safety and Health Administration (WISHA), which monitors and regulates worker safety and health on the island. This apparent lack of contact is most disturbing since there are no dwellings located on Harbor Island, i.e., Harbor Island is an isolated industrial community with workers spending approximately eight (8) hours a day on the Island, with the vast majority of that eight (8) hours being in an industrial environment.

The reviewer's information, as documented in the public record, was from the Puget Sound Air Pollution Control Agency (PSAPCA), "Health District files", and NOAA records and files.

It appears the reviewer neglected to contact the most knowledgeable individuals regarding the potential health hazards presented by lead found on Harbor Island. The quantity, sources, and toxicity of lead in the setting of Harbor Island have been mislabelled by the reviewer. In addition, the general public and the industrial community of Harbor Island, through press releases containing misleading information, have been put in a position of confusion.

The EPA's position on general hazardous substance toxicity ratings, measured at the point where impacts on human health or the environment actually occur, is that concentration data on long - or short - term levels are frequently unavailable, controversial, and costly to obtain and thus are not to be employed. Please note that this is in direct conflict with the instructions to the user of the HRS and with the use of the Sax Toxicity Ratings. Essentially the EPA's position is that a subjective uninformed reviewer's opinion is to be used, even if extensive information and data is readily available to the reviewer. In particular, lead on Harbor Island has been studied extensively by PSAPCA, WISHA, King County Health Department, METRO, and by several of the industries located on Harbor Island. In addition, the Centers for Disease Control, the EPA and OSHA have already expended large sums of money to study and publish extensive information, guidelines, and regulations that apply to lead and its toxicity at many different levels. Thus, as directed by the HRS instructions, RSR Corporation believes this existing, readily available, information should have been used in determining potential hazards to public health and environment.

Harbor Island is a man made island (about 1896). The fill materials used to construct the island are not entirely known and the characteristics of the fill materials are unknown. The island is located in the mouth of the Duwamish River which empties into Elliot Bay. The Duwamish River is a polluted source upon its arrival at Harbor Island. A groundwater aquifer, as commonly referred to, does not exist in the environment of this man made island in a river mouth where the river flows through the island and, possibly, the tides cause Bay (salt) waters to flow through the island. Therefore, the island probably serves as a contaminate filter for these surface waters. Also, the unknown fill materials may serve as a further source of contamination to these surface waters.

A review of the Sax Toxicity Ratings, in context, can only require a reviewer under the HRS scoring system to place "lead on Harbor Island" somewhere between the Slight and Moderate Toxicity category. Throughout the Toxicology Section of the book where the Toxicity Ratings are found, the following clarifications are pointed out to the user of the ratings.

- (1) The dosage or amount of the chemical required to produce harm is important.
- (2) The single most important factor in determining whether or not illness will occur as the result of exposure to a specific chemical compound is dosage.

- (3) In order to demonstrate that chronic poisoning has taken place or is a possibility it must be shown that an offending agent is present in significant concentrations, that it has been absorbed, and that it has produced in the exposed subject, disturbances compatible with poisoning by the suspected substance.
- (4) Absorption does not necessarily or always result in poisoning.
- (5) All things are poisons, for there is nothing without poisonous qualities, it is only the dose which makes a thing a poison.

Therefore, the correct application of the Sax Toxicity Rating in context to "lead on Harbor Island" would produce the following:

Chronic Exposure:

Low Small Dosage: Slight Toxicity:

Centers for Disease Control (CDC) Blood lead level (PbB); PbB less than 30 ug/dl; no health concern.

Chronic systemic. Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce only slightly usually reversible effects following continuous or repeated exposures extending over days, months, or years. The extent of exposure may be great or small.

In general, those substances classified as having "slight toxicity" produce changes in the human body which are readily reversible and which will disappear following termination of exposure, either with or without medical intervention.

Chronic Exposure:

Moderate Small Dosage: Moderate Toxicity:

CDC Blood lead level; PbB greater than or equal to 30 ug/dl and less than 40 ug/dl; possible health concern, dependent upon subjects age, environment, past history, etc.

Chronic systemic. Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce moderate effects following continuous or repeated exposures extending over periods of days, months, or years. Those substances classified as moderate toxicity may produce irreversible as well as reversible changes in the human body. The dangers are not of such severity as to threaten life or produce serious physical impairment.

Chronic and/or Acute Exposure:

High Small Dosage: Severe Toxicity:

CDC Blood lead level; PbB greater than or equal to 40 ug/dl; health concern.

Acute systemic. Material which can be absorbed into the body by inhalation, ingestion, or through the skin and which can cause injury of sufficient severity to threaten life following a single exposure lasting seconds, minutes, or hours, or following ingestion of a single dose.

Chronic systemic. Materials which can be absorbed into the body by inhalation, ingestion or through the skin and which can cause death or serious physical impairment following continuous or repeated exposures to small amounts extending over period of days, months, or years.

It is a known fact that lead is a cumulative poison, i.e., increasing amounts can build up in the body and eventually a point is reached where symptoms occur. Also, the body expels lead from its systems, thus the rate of intake versus the rate of expulsion is the deciding factor in determining the toxicity of lead. Thus, the terms such as dosage, toxicity, and exposure used in applying the Sax Toxicity Rating must be applied in the context for what is being evaluated. This is to say that subjective uninformed reviewer definitions are not acceptable, since the Sax Toxicity Ratings are well defined for, and oriented to, industrial exposures.

The 1.5 ug/m^3 lead standard for ambient air is based upon several assumptions and facts. In particular, the value was set at 50% below what was calculated to protect the most susceptible population, i.e., young children. (Note: No young children reside on Harbor Island.) It is very obvious that the Sax Toxicity Rating system is not designed to evaluate exposure levels in this range, since they in no way compare to industrial exposures. However, if the Sax Toxicity Rating system is applied and is applied objectively in context, it can serve as a valuable rating tool in the HRS. This "objective" intended use of the Sax Toxicity Ratings is even more obvious in that the NFPA Toxicity Rating Level 2 probably applies to lead and it corresponds to a Sax Toxicity Rating of Level 2 in the HRS.

According to the EPA reviewer, there are about 40 acres of unpaved (potentially dust creating) area on Harbor Island. The depth to which significant contamination exists is unknown. Assuming that forty acres to a depth of six (6) inches is contaminated, then there is approximately 32,300 cubic yards of contaminated soil. The soil portion of contaminated soil is specifically excluded from determinations for quantity under the HRS. The Puget Sound Air Pollution Control Agency conducted a dust potential soil survey (1979) of Harbor Island which reported an average lead concentration of 48000 ppm (4.80%). Simple calculations based on HRS definitions (one ton equals one cubic yard) provides a quantity of approximately 1550 tons in cubic yards, which scores less in the HRS than that subjectively scored by the EPA reviewer.

However, there is no documentation or logic other than the opinion of the uninformed subjective reviewer for assuming a contamination level to a depth of six (6) inches at 4.8%. The following chart illustrates that if, as the records suggests, the lead on Harbor Island was placed by air deposition, the quantity of lead is much less than that subjectively chosen by the EPA reviewer.

<u>Depth</u>	<u>% Pb</u>	<u>40 Acre Volume</u>	<u>Volume Pb</u>	<u>HRS Value</u>
6"	4.8	32,300	1550	7
5"	4.8	26,917	1292	7
4"	4.8	21,533	1034	6
3"	4.8	16,150	775	6
2"	4.8	10,767	517	5
1"	4.8	5,383	258	5

In addition, PSAPCA's 1979 dust potential soil survey also included the area along highway 99, which indicates a background for the area to be 1500 ppm or (0.15%). Thus 4800 less the background of 1500 equals 3300 ppm (3.3%); therefore,

<u>Depth</u>	<u>% Pb</u>	<u>40 Acre Volume</u>	<u>Volume Pb</u>	<u>HRS Value</u>
6"	3.3	32,300	1066	6
5"	3.3	26,917	888	6
4"	3.3	21,533	710	6
3"	3.3	16,150	533	5
2"	3.3	10,767	355	5
1"	3.3	5,383	178	4

Also, in March, 1982, PSAPCA resampled the dust potential soil on Harbor Island and found an average lead concentration of 13,500 ppm (1.35%); therefore,

<u>Depth</u>	<u>% Pb</u>	<u>40 Acre Volume</u>	<u>Volume Pb</u>	<u>HRS Value</u>
6"	1.35	32,300	436	5
5"	1.35	26,917	363	5
4"	1.35	21,533	291	5
3"	1.35	16,150	218	4
2"	1.35	10,767	145	4
1"	1.35	5,383	73	3

In addition, PSAPCA records indicate there is 31.26 acres of contaminated soil to be controlled on Harbor Island; therefore,

<u>Depth</u>	<u>% Pb</u>	<u>31.26 Acre Volume</u>	<u>Volume Pb</u>	<u>HRS Value</u>
6"	1.35	25,216	340	5
5"	1.35	21,014	284	5
4"	1.35	16,811	227	4
3"	1.35	12,608	170	4
2"	1.35	8,405	113	3
1"	1.35	4,203	57	2

The definition of release excludes any release which results in exposure to persons within a workplace, i.e., occupational exposures are not to be included as an observed incident of a release or direct contact to the public. There are no dwellings on Harbor Island. There are numerous work place (occupational) exposures to lead in the industrial environment of Harbor Island.

Harbor Island is "an island" and thus by nature provides some restriction on accessibility, i.e., other than rail and shipping, there is only one route onto and off of the island (Spokane Street). There are no significant general retail outlets on the island to attract the general public. Therefore, the only significant direct contact (exposure) with lead on Harbor Island is workers in the industrial environment, many of which are also exposed to occupational dosages of lead.

RSR Corporation requested from EPA Region X documents, which would "document" the statements made in EPA press releases and the accuracy (objectivity) of the EPA reviewer's HRS scoring. A copy of this request and the EPA's returns are attached (see note A). This information clearly indicates that Harbor Island was placed on the PNPL based solely on the uninformed subjective (and incorrect) assumptions of the EPA reviewer. In particular, there is no logic or scientifically sound data for the following subjective assumptions made by the EPA:

1. Lead in soil of Harbor Island is above EPA Extraction Procedure Toxicity Test;
2. Soil on Harbor Island is contaminated to a depth of six (6) inches;

3. There is an (are) observed incident(s) of direct public contact by lead on Harbor Island (see note B);
4. The source of lead on Harbor Island is a secondary lead smelter; and
5. The population values were chosen according to HRS instructions and intent.

Therefore, if the HRS is applied objectively with all the known, existing, readily available, information, the attached HRS scoring would result. It should be noted that each HRS score is less than the 28.50 criteria for inclusion on the PNPL. In addition, it should be known that if the same subjective reviewer procedure, as that applied to Harbor Island lead by the EPA, was applied to areas around most major city traffic routes, then these areas would also, by virtue of their HRS scores, be included on the PNPL.

Note A The EPA's response to RSR's FOI request included a statement to the effect that the request contained questions, request for comments, explanations, advice, or comments by RSR concerning the EPA and that none of those matters will be processed under the FOI request. In fact RSR's request contained none of these items, but to the contrary made very specific requests for data and photographs which had resulted in EPA comments and explanations. Since there was no reason for the inclusion of this statement of effect by the EPA, it must be construed to imply that data exists but the EPA is unwilling to release the data because it does not support the EPA public record or no data exists to support the EPA public record.

Note B Apparently the EPA reviewer made judgements on comments or published information by PSAPCA which were taken and made out of context and which resulted in the assumption that observed incidents of direct public contact had occurred. A review of the document from which these statements and comments must have been derived, indicates that no observed incident occurred. In addition, since RSR Corporation requested documentation of any such observed incident and the EPA could not produce such documentation, it must be assumed that no incident of observed direct contact has occurred.

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM
PREPARED BY RSR CORPORATION ON BEHALF OF QUEMETCO, INC.

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: Harbor Island

LOCATION: Harbor Island, Seattle, Washington

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Not Applicable

Rationale for attributing the contaminants to the facility:

Not Applicable

2 ROUTE CHARACTERISTICS

Depth of Aquifer of Concern

Name/description of aquifer(s) of concern:

None

Depth(s) from the ground surface to the highest seasonal level of the saturated zone (water table(s)) of the aquifer of concern:

No aquifer.

Depth from the ground surface to the lowest point of waste/disposal storage:

Unknown, assumed to be approximately three (3) inches.

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

39.08"; (NOAA records)

Mean annual lake or seasonal evaporation (list months for seasonal):

22" to 24"; (47 FR 31227)

Net Precipitation (subtract the above figures):

17.08" to 15.08"

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Surface of artificial fill is medium gray, angular to sub-angular, fine to medium grained volcanic and quartz sand. (General geologic observation.)

Permeability associated with soil type:

In the range of 10^{-3} to 10^{-5} cm/sec.

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Unknown. However, assumed to be as particulate from long term industrial use of island.

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Approximately 78% of island is covered with buildings or pavement.

Method with highest score:

No aquifer, thus highest score is zero.

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

No aquifer, thus highest score is zero.

Compound with highest score:

No aquifer, thus highest score is zero.

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

No aquifer, thus not applicable.

Basis of estimating and/or computing waste quantity:

No aquifer, thus not applicable.

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

No aquifer, thus not applicable.

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

No aquifer, thus not applicable.

Distance to above well or building:

No aquifer, thus not applicable.

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

No aquifer, thus not applicable.

Computation of land area irrigated by supply well(s) drawing from aquifer of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

No aquifer, thus not applicable.

Total population served by ground water within a 3-mile radius:

No aquifer, thus not applicable.

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Lead only contaminate evaluated.

Rationale for attributing the contaminants to the facility:

METRO and PSAPCA records indicate several major sources are located on Harbor Island.

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrian

Average slope of facility in percent:

Less than 2%.

Name/description of nearest downslope surface water:

Harbor Island is surrounded by the Duwamish River and Elliot Bay.

Average slope of terrian between facility and above-cited surface water body in percent:

Less than 2%.

Is the facility located either totally or partially in surface water?

Yes, Harbor Island is a man made island in the mouth of the Duwamish River.

Is the facility completely surrounded by areas of higher elevation?

No.

1-Year 24-Hour Rainfall in Inches

1.8 inches (90% of two (2) year, 24 hour rainfall; NOAA records). (Taken from EPA Public Records.)

Distance to Nearest Downslope Surface Water

Immediately adjacent.

Physical State of Waste

Unknown, however, assumed to be as particulate from long term industrial use of island.

3 CONTAINMENT

Approximately 78% of island is covered with buildings or pavement.

Containment

Method(s) of waste or leachate containment evaluated:

Same as above.

Method with highest score:

Same as above.

WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

(1) Lead

Compound with highest score:

Only lead is evaluated.

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

$31.26 \times 4840 \times 1/36 \times 0.0135 = 56.74$ tons in cubic yards; HRS = 2

$31.26 \times 4840 \times 2/36 \times 0.0135 = 113.47$ tons in cubic yards; HRS = 3

$31.26 \times 4840 \times 3/31 \times 0.0135 = 170.21$ tons in cubic yards; HRS = 4

$31.26 \times 4840 \times 4/36 \times 0.0135 = 226.95$ tons in cubic yards; HRS = 4

$31.26 \times 4840 \times 5/36 \times 0.0135 = 283.68$ tons in cubic yards; HRS = 5

$31.26 \times 4940 \times 6/36 \times 0.0135 = 340.42$ tons in cubic yards; HRS = 5

Basis of estimating and/or computing waste quantity:

Approximately 31.26 acres of contaminated soil with an average lead concentration of 1.35% (PSPCA records). Depth of contamination is approximately one (1) to six (6) inches based on assumption of physical state of substance, thus median of three inches assumed.

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Commercial and recreational boating and fishing.

Is there tidal influence?

Yes.

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Greater than 2 miles.

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Greater than one mile.

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

Greater than one mile.

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

None

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

None

Total population served:

None

Name/description of nearest of above water bodies:

None

Distance to above-cited intakes, measure in stream miles.

None

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

- (1) Lead
- (2) TSP - Total Suspended Particulate
(PSAPCA RECORDS)

Date and location of detection of contaminants:

1977 to present PSAPCA K60 monitor; Hi-Vol; Every six(6) days (presently below 1.5 ug Pb/m³)

1980 to present PSAPCA K71 monitor; Hi-Vol; every six(6) days
(PSAPCA RECORDS)

Methods used to detect the contaminants:

Hi-Vol by standard EPA methods
(PSAPCA RECORDS)

Rationale for attributing the contaminants to the site:

Hi-Vol monitors located on Harbor Island.

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Does not apply.

Most incompatible pair of compounds:

Does not apply.

Toxicity

Most toxic compound:

Unknown. However, lead is assumed.

Hazardous Waste Quantity

Total quantity of hazardous waste:

Approximately 170 tons in cubic yards; HRS = 4

Basis of estimating and/or computing waste quantity:

See comments under "Surface Water" quantity calculations.

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi	0 to 1 mi	0 to 1/2 mi	0 to 1/4 mi
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>10,000	>10,000	6,000	> 3,000
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Unknown, however assumptions used by EPA are given.

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Greater than one mile.

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Greater than one mile.

Distance to critical habitat of an endangered species, if 1 mile or less:

Greater than one mile.

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Island and immediate surrounding area is commercial/industrial area.

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Greater than two miles.

Distance to residential area, if 2 miles or less:

Note the following distances are given from the island and do not necessarily indicate distance from hazardous substance:

Approximately 1/2 mile on south side; Approximately 1 mile on West side;
Approximately 1 1/2 miles on east side; greater than two miles on North side.

Distance to agricultural land in production within past 5 years, if 1 miles or less:

Greater than one mile.

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Greater than two miles.

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

None known.

Facility name:	Harbor Island		
Location:	Seattle, Washington		
EPA Region:	10		
Person(s) in charge of the facility:	Numerous industries, the Port of Seattle, and the City of Seattle		
Name of Reviewer:	PSR Corporation	Date:	February 1983
General description of the facility:			
(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)			
The island is an industrial community of numerous contaminate			
(including lead)* sources. Heavy industrial uses of this man			
made island over its years of existence (since 1896) has			
resulted in the surface soils being contaminated. Dusting			
from unpaved areas and industrial sources has resulted in			
exceedances of ambient air contaminate standards.			
Scores: $S_M = 22.70$ $S_{gw} = 0$ $S_{sw} = 7.97$ $S_a = 38.46$			
$S_{FE} = 5.83$			
$S_{DC} = 22.22$			

FIGURE 1
HRS COVER SHEET

BILLING CODE 6560-50-C

* Lead is the only contaminate evaluated herein.

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	(0) 45	1	0	45	3.1	
If observed release is given a score of 45, proceed to line 4 . If observed release is given a score of 0, proceed to line 2 .						
2 Route Characteristics					3.2	
Depth to Aquifer of Concern	(0) 1 2 3	2	0	6		
Net Precipitation	0 1 2 (3)	1	3	3		
Permeability of the Unsaturated Zone	0 1 (2) 3	1	2	3		
Physical State	0 1 (2) 3	1	2	3		
Total Route Characteristics Score			7	15		
3 Containment	0 1 2 3	1	3	3	3.3	
4 Waste Characteristics					3.4	
Toxicity/Persistence	0 3 6 9 12 (15) 18	1	15	18		
Hazardous Waste Quantity	0 1 2 3 (4) 5 6 7 8	1	4	8		
Total Waste Characteristics Score			19	26		
5 Targets					3.5	
Ground Water Use	(0) 1 2 3	3	0	9		
Distance to Nearest Well/Population Served	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40		
Total Targets Score			0	49		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	57,330		
7 Divide line 6 by 57,330 and multiply by 100			$S_{gw} = 0$			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 <u>45</u>	1	45	45	4.1	
If observed release is given a value of 45, proceed to line 4 . If observed release is given a value of 0, proceed to line 2 .						
2 Route Characteristics					4.2	
Facility, Slope and Intervening Terrain	0 1 2 3	1		3		
1-yr. 24-hr. Rainfall	0 1 2 3	1		3		
Distance to Nearest Surface Water	0 1 2 3	2		6		
Physical State	0 1 2 3	1		3		
Total Route Characteristics Score			X	15		
3 Containment	0 1 2 3	1	X	3	4.3	
4 Waste Characteristics					4.4	
Toxicity/Persistence	0 3 6 9 12 <u>15</u> 18	1	15	18		
Hazardous Waste Quantity	0 1 2 3 <u>4</u> 5 6 7 8	1	4	8		
Total Waste Characteristics Score			19	26		
5 Targets					4.5	
Surface Water Use	0 1 <u>2</u> 3	3	6	9		
Distance to a Sensitive Environment	<u>0</u> 1 2 3	2	0	6		
Population Served/Distance to Water Intake Downstream	<u>0</u> 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40		
Total Targets Score			6	55		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			5130	64,350		
7 Divide line 6 by 64,350 and multiply by 100			S _{sw} = 7.97			

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 45	1	45	45	5.1	
Date and Location: PSAPCA stations K-60 and K-71						
Sampling Protocol: EPA Standard Hi-Vol						
If line 1 is 0, the $S_a = 0$. Enter on line 2 . If line 1 is 45, then proceed to line 2 .						
2 Waste Characteristics					5.2	
Reactivity and Incompatibility	0 1 2 3	1	0	3		
Toxicity	0 1 2 3	3	6	9		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	4	8		
Total Waste Characteristics Score			10	20		
3 Targets					5.3	
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1	27	30		
Distance to Sensitive Environment	0 1 2 3	2	0	6		
Land Use	0 1 2 3	1	3	3		
Total Targets Score			30	39		
4 Multiply 1 x 2 x 3			13,500	35,100		
5 Divide line 4 by 35,100 and multiply by 100			$S_a = 38.46$			

FIGURE 9
AIR ROUTE WORK SHEET

	s	s ²
Groundwater Route Score (S _{gw})	0	0
Surface Water Route Score (S _{sw})	7.97	63.52
Air Route Score (S _a)	38.46	1479.17
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1542.69
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		39.28
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		22.70

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Containment	1 3	1	1	3	7.1	
2 Waste Characteristics					7.2	
Direct Evidence	0 3	1	0	3		
Ignitability	0 1 2 3	1	0	3		
Reactivity	0 1 2 3	1	0	3		
Incompatibility	0 1 2 3	1	0	3		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	4	8		
Total Waste Characteristics Score			4	20		
3 Targets					7.3	
Distance to Nearest Population	0 1 2 3 4 5	1	5	5		
Distance to Nearest Building	0 1 2 3	1	3	3		
Distance to Sensitive Environment	0 1 2 3	1	0	3		
Land Use	0 1 2 3	1	3	3		
Population Within 2-Mile Radius	0 1 2 3 4 5	1	5	5		
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1	5	5		
Total Targets Score			21	24		
4 Multiply 1 x 2 x 3			84	1,440		
5 Divide line 4 by 1,440 and multiply by 100			SFE = 5.83			

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Incident	0 45	1	0	45	8.1	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	0 5 10	1	5	5	8.2	
3 Containment	0 15	1	15	15	8.3	
4 Waste Characteristics Toxicity	0 1 2 3	5	10	15	8.4	
5 Targets					8.5	
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	16	20		
Distance to a Critical Habitat	0 1 2 3	4	0	12		
Total Targets Score			16	32		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			4800	21,600		
7 Divide line 6 by 21,600 and multiply by 100			SDC = 22.22			

FIGURE 12
DIRECT CONTACT WORK SHEET



January 19, 1983

Fed Exp # 303884755

John Hamill, Esq.
Office of Regional Counsel
U. S. Environmental Protection Agency
1200 - 6th Avenue, M/S 613
Seattle, Washington 98101

Re: Request for Information Regarding the Determination and Classification of Harbor Island as an EPA "Superfund Site"

Dear Mr. Hamill:

The EPA Region X public record concerning the classification of Harbor Island as an EPA "Superfund Site" contains statements which indicate the below requested data and information were used to make the determinations which resulted in Harbor Island being classified as an EPA "Superfund Site". Review of the requested information and data are required by RSR such that RSR Corporation may determine if comments, as solicited by FR 58476 through FR 58480, are appropriate.

As applicable under the Freedom of Information Act, please accept this letter as a formal request by RSR Corporation on behalf of its subsidiary, Quemetco, Inc., for copies of the following information:

1. Data to show whether lead in the soil of Harbor Island is below or above the EPA EP Toxicity test limits; this data should include complete protocol data as specified in EPA publication SW-846;
2. Data to show that EPA's assumption that the contamination of soil at the six inch level all over the island is valid;
3. Data to show that Harbor Island workers, at facilities other than Quemetco, have elevated blood lead levels;
4. Aerial photographs of Harbor Island taken during the early years of industrial development of Harbor Island;
5. Data to show that lead on and around Harbor Island is lead that originated from air emissions at Quemetco and not from scrap yards, gasoline storage, and/or lead users, e.g., ship yards;
6. Data to show that there is a health hazard on Harbor Island sufficient to place the Island on the Superfund List;

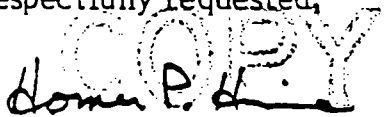
Page # 2
John Hamill, Esq.

7. Data to show that workers everywhere on Harbor Island are exposed to levels of lead above the 1.5 ug/m^3 level averaged over a calendar quarter;
8. Data to show how the population effected by Harbor Island is determined.

Hopefully, the requested information will be supplied to RSR in a timely manner such that RSR may file comments that are due by February 28, 1983.

If you have questions regarding this request or require clarification of this request, please do not hesitate to contact me at 214-631-6070.

Respectfully requested,


Homer P. Hine
Chief Chemist
Technical Services Department
RSR Corporation

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

January 24, 1983

RECEIVED

JAN 26 1983

BY
RSR CORPORATION
TECHNICAL SERVICES DEPARTMENT



REPLY TO
ATTN OF: Mail Stop 613

Mr. Homer P. Hine
1111 West Mockingbird Lane
Dallas, Texas 75217

Re: Letter Dated 1-19-83
Freedom of Information No. 10-RIN-19-83/1

Dear Mr. Hine:

Your letter cited above was received by the Environmental Protection Agency (EPA), Region 10 on 1-21-83.

I have taken the following indicated action(s) with respect to that letter:

_____ 1. Determined that your cited FOIA request is not presently in proper form. On the reverse hereof, or in the attached, are comments indicating the necessary corrective actions for your request. The response period is suspended until your request is properly refined and submitted.

_____ 2. Determined that in part the letter asks questions or requests responses, comments, or explanations, which do not constitute a request for existing documents/records, and those non-FOIA matters will not be processed under FOIA procedures.

X 3. Asked the following office to see whether or not we have any such documents, and to respond to you: Air & Hazardous Waste Division

X 4. Established the normal deadline date for mailing to you a response letter, and that date is 2-4-83.

Enclosed is an Information Sheet which outlines the FOIA procedures currently followed in Region 10. Please read it carefully in connection with your cited letter.

Sincerely,

John A. Hamill
Freedom of Information Officer
EPA Region 10

Enclosure

cc: (w/out encls)
A. Smith/P. Dooley

INFORMATION SHEET
EPA REGION 10
FREEDOM OF INFORMATION ACT PROCEDURES

Region 10 has an officially designated Freedom of Information Act (FOIA) Officer. That person is designated pursuant to EPA Order 1550.1C dated August 23, 1978.

The Freedom of Information (FOI) Officer's function in Region 10 is to serve as a "clearinghouse" for incoming written FOIA requests (which are governed by the FOIA, 5 U.S.C. §552 and EPA regulations, 40 C.F.R. Part 2, Subpart A). The FOI functions are limited to processing requests for records and do not include responding to general inquiries or questions.

Only requests for records are governed by the FOIA. Requests for answers to questions, for comments, and for explanations, etc. are not governed by the statute. In this respect, the word "information" in the title of the FOIA can be misleading to persons making inquiries. The FOI Office will disregard all portions of inquiries that are not strictly limited to requests for documents. Also, there is no statutory deadline for EPA offices or officials to meet in making response to inquiries which are outside the FOIA. Accordingly, inquirers must recognize that questions and requests for comment, explanations, etc., should be submitted separately from FOIA requests, and will not be processed under FOIA procedures. They will be disregarded when they are combined with an FOIA request.

"Continuing" requests, i.e., requests for records expected to come into existence in the future, are also not governed by the FOIA, and normally will not be honored. Instead, the inquirer must resubmit (if desired) the request at a later date.

One frequently misunderstood area relates to intra-agency and interagency written communications which constitute (or reflect) the Agency's policy or decision-making processes. Deliberative materials are exempted from compulsory disclosure for a variety of reasons, e.g., to enable government employees to solicit and provide candid uninhibited comments without fear of outside pressures and without fear that those individual comments may be later held to public scrutiny; to prevent the Agency as an institution from being improperly viewed as the putative sponsor of individual opinions or views; to prevent confusion concerning the ultimate reasons for Agency institutional action or inaction which can result from the disclosure of predecisional documents, etc. Because of the "chilling effects" on employee dialogue which can be created by disclosure of deliberative materials, this is the area in which the Agency is most likely to stand on its exemption privileges and decline to waive an exemption.

If all or part of an inquiry is in acceptable form under the FOIA, the inquirer will receive notice of the prospective date by which a further response from EPA will be mailed. If, from the request, it appears that many records must be culled, or that two or more components in the Agency will have a substantial subject-matter interest in connection with the records requested (which is frequently the case), the responding office or the FOI Officer may extend (up to 20 working days) the date for the response (which is normally 10 working days).

The office to which an FOIA request is assigned will estimate probable FOIA charges, and will request prepayment of those charges if they total more than ten dollars. Until such charges are paid, (or waived) the 10 working day time limit is suspended. Also, until such charges are paid (or waived), EPA is not required to do anything further to process the request.

In instances where a waiver or reduction of fees is requested, no processing of the request will occur until either a final decision is made on the waiver or reduction issue, or else the initially estimated fees are prepaid in full.

Normally, a final response to an FOIA request will be sent under the signature of the "responsible official." If that response includes a full or partial refusal to produce existing records, then that refusal may be appealed to the agencywide Freedom of Information Officer within 30 days of the receipt of the written refusal. The appeal address is "Freedom of Information Officer, A-101, 301 M Street, S.W., Washington, D.C. 20460."

Prior to an appeal, an inquirer may discuss an FOIA request with the Region 10 FOI Office. After any appeal, the matter should be discussed with the Washington, D. C. office. The current Seattle EPA phone number for the the Region 10 FOI Office is (206) 442-1275.

Publication Date:

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101



REPLY TO
ATTN OF: M/S 613

February 4, 1983

Homer D. Hine, Chief Chemist
RSR Corporation
1111 West Mockingbird Lane
Dallas, Texas 75247

Re: Your Request Dated January 19, 1983
RIN No. 10-RIN-19-83/1

Dear Mr. Hine:

For the reasons indicated below, it has become necessary to extend the deadline date for mailing an initial determination letter responding to your cited request. The new deadline date by which a response is due to you is February 8, 1983.

The reasons for this extension are checked below:

- ☐ (a) There is a need to conduct a search in Region 10 Operations Offices to determine what, if any, documents may exist there which are within the purview of your request.
- ☐ (b) A large number of documents need to be searched for and/or examined to determine whether they contain material relevant to your request.
- ☒ (c) Consultation between at least two components of EPA will be required for any documents located because of a substantial interest in the subject matter.

Hopefully, a response will be forthcoming to you before this new deadline date.

Sincerely,

FOI Office, EPA Region 10

by:

bbc:

RECEIVED

FEB 09 1983

BY
RSR CORPORATION
TECHNICAL SERVICES DEPARTMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE

SEATTLE, WASHINGTON 98101



REPLY TO
ATTN OF: Mail Stop 524

RECEIVED

FORM FOIA RESPONSE LETTER

FEB 11 1983

FEB 8 1983

RSR CORPORATION
TECHNICAL SERVICES DEPARTMENT

Homer P. Hine, Chief Chemist
Technical Services Department
RSR Corporation
1111 West Mockingbird Lane
Dallas, Texas 75247

Re: Your letter Dated January 19, 1983
FOIA Request No.: 1-RIN - 19- 83/1

Dear Mr. Hine:

With respect to your subject letter, it has been received, duly considered, and examined (in particular) for a request for records pursuant to the Freedom of Information Act (FOIA). Please be advised of each of the matters checked below.

- A. ☐ Your letter cited above has been received and its contents have been duly noted. However, it did not contain any FOIA request for reasonably described records and will not be responded to or processed under the FOIA procedures.
- B. ☐ We cannot locate any records encompassed by your request and must conclude that no such records presently exist in the possession of this Agency.
- C. ☐ Enclosed are _____ pages of records we have found which are encompassed by your request. FOIA charges for producing these records have already been collected or have been waived.
- D. ☐ EPA is not withholding as FOIA exempt any records (or portions thereof) encompassed by your request.
- E. ☐ Some records, or some material in the records, encompassed by your request are being withheld as exempt under one or more of the provisions of 5 U.S.C. §552(b) and 40 C.F.R. §2.118, but you will receive a separate letter on this point.
- F. ☒ If your cited letter contained (a) questions, or (b) requests for comments, explanations, advice, etc., or (c) comments by you concerning EPA, none of those matters will be processed under our FOIA procedures.

2.

G. _____ This Regional EPA office does possess some records encompassed by your request but we will not cull them out, or duplicate them or send them to you unless and until the estimated charges for those services are paid (or waived) as you have already been advised by separate letter.

H. _____ Because search charges have been paid (or waived) we have located and culled out approximately _____ pages or records which are encompassed by your request. Because those records are voluminous, they will not be photocopied and mailed, but instead are hereby made available for your inspection in Suite _____ of this Regional Office during normal working hours on or before (but not after) the _____ day of _____, at 442-_____ to arrange to inspect those records.

I. _____ The records you have requested are currently available to the general public at the following places, and will not copy or send them to you:

J. _____ This letter responds to only a portion of your request. The balance of your request is being processed by other EPA units.

K. K Additional matters which you should be aware of are attached.

Sincerely,

Alexandra B. Smith, Director
Air & Waste Management Division

cc: FOI Office, M/S 613

Attachment

Most of the information you requested is included in "Airborne Lead-A Plan for Control," March 1980, by the Puget Sound Air Pollution Control Agency (PSAPCA) and the Washington State Department of Ecology. For a copy, write to:

Puget Sound Air Pollution Control Agency
410 West Harrison Street
P. O. Box 9863
Seattle, Washington 98109

The aerial photography is available by writing to:

Environmental Protection Agency
Environmental Monitoring Systems Laboratory
P. O. Box 15027
Las Vegas, Nevada 89114


Request the following:

- 1). EMSL-LV Project RSD 7650, Numbers 7650-180, 7650-168, and 7650-151, dated 7-15-76.
- 2). TS-AMD-82084, Figure 9, 6-11-82.
3. TS-AMD-82006 - June 1982:
 - a) Figure 8, 7-18-40
 - b) Figures 16 & 17, 8-7-61
 - c) Figure 26, 9-2-68
 - d) Figure 31, 6-12-74
 - e) Figure 39, 7-26-80

If you prefer, all of the above may be viewed (only) at the Regional Office in Seattle.

Any remaining questions which can be answered via an FOIA request are answered in the public docket, attached.

Attachments

ROUTING AND TRANSMITTAL SLIP		Date
TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1.		
2.		
3.		
4.		
5.		
Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	
REMARKS		
<p>Dear Mr. Hine:</p> <p>Enclosed is the attachment to the response we mailed to you on your request for information on Harbor Island. It was left out of the envelope by mistake.</p> <div style="text-align: right; margin-top: 20px;">  </div>		
DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions		
FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.	
	Phone No.	
<div style="display: flex; justify-content: space-between;"> 5041-102 OPTIONAL FORM 41 (Rev. 7-76) Prescribed by GSA FPMR (41 CFR) 101-11.206 </div>		

HARBOR ISLAND
SEATTLE, WASHINGTON

The Situation:

High levels of lead have been measured in the ambient air and surface dust on Harbor Island, an industrial parcel of land at the mouth of Duwamish Waterway where it empties into Seattle's Elliott Bay. Air monitoring equipment has recorded concentrations of lead at levels several times the national standard established to protect human health. There is also concern that lead-laden dust and accumulations of lead in the Harbor Island soil has resulted in run-off of lead into nearby surface water and, by percolation, has caused lead to enter groundwater.

Work Done To Date:

The City of Seattle has paved areas where concentrations of airborne lead are the highest.

In addition, one industrial operation that is a source of airborne lead has instituted control measures to reduce fugitive lead-laden dust and emissions of lead from its industrial process.

What's Next?

The City of Seattle is committed to pave more surface areas of Harbor Island.

It must be determined to what extent, and in what relative degree of combination, the lead problems on Harbor Island are being caused by current emissions from one or more industrial sources as opposed to the re-suspension of the accumulations of lead in soil and dust on the surface of the island.

RECEIVED

FEB 14 1983

BY
RSR CORPORATION
TECHNICAL SERVICES DEPARTMENT

Harbor Island Lead
Seattle, Washington

High levels of lead have been measured in the surface dust on Harbor Island, an island in the Duwamish River in an industrial area of Seattle, Washington. Heavy accumulation of lead in soils and dust have resulted in lead run-off into the surface water, percolation of lead into unused groundwater, and lead exposure via ambient air for some 6000 workers in the immediate industrial area. Cases of elevated levels of lead in the blood of workers and workers' children are documented.

Facility name: Harbour Island Lead

Location: Harbour Island, Seattle, WA

EPA Region: 10

Person(s) in charge of the facility: As above

Name of Reviewer: H. Aldis

Date: 8/2/82

General description of the facility:

(For example: landfill, surface impoundment, pile, container, types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Lead battery recycling plant, on the island.
Very heavy accumulation of lead in
soils and dust on the plant site resulted in lead run off into surface
water, percolation into unused ground-water and dust in ambient air
with resultant exposure to some 6000 workers in a heavily indus-
trial area.

Score: $S_M = \frac{38.31}{42.5} (S_{SW} = 0) \quad S_{SW} = 10.91 \quad S_A = \frac{65.38}{71.99} \quad \frac{38.31}{42.5}$

$S_{FE} = 0$

$S_{DC} = 50\%$

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	<u>0</u> 45	1		45	3.1	
If observed release is given a score of 45, proceed to line 4 . If observed release is given a score of 0, proceed to line 2 .						
2 Route Characteristics					3.2	
Depth to Aquifer of Concern	0 1 2 3	2		6		
Net Precipitation	0 1 2 3	1		3		
Permeability of the Unsaturated Zone	0 1 2 3	1		3		
Physical State	0 1 2 3	1		3		
Total Route Characteristics Score				15		
3 Containment	0 1 2 3	1		3	3.3	
4 Waste Characteristics					3.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1		18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8		
Total Waste Characteristics Score				26		
5 Targets					3.5	
Ground Water Use	<u>0</u> 1 2 3	3		9		
Distance to Nearest Well/Population Served	<u>0</u> 4 6 8 10 12 16 18 20 24 30 32 35 40	1		40		
Total Targets Score				<u>0</u> 49		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				57,330		
7 Divide line 6 by 57,330 and multiply by 100				S _{gw} = <u>0</u>		

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multi- plier	Score	Max. Score	Rel. (Section)
1 Observed Release	0	45	1	45	45	4.1
If observed release is given a value of 45, proceed to line 4 . If observed release is given a value of 0, proceed to line 2 .						
2 Route Characteristics						4.2
Facility Slope and Intervening Terrain	0	1 2 3	1	0	3	
1-yr. 24-hr. Rainfall	0	1 2 3	1	2	3	
Distance to Nearest Surface Water	0	1 2 3	2	6	6	
Physical State	0	1 2 3	1	2	3	
Total Route Characteristics Score				10	15	
3 Containment	0	1 2 3	1	3	3	4.3
4 Waste Characteristics						4.4
Toxicity/Persistence	0	3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0	1 2 3 4 5 6 7 8	1	8	8	
Total Waste Characteristics Score				26	25	
5 Targets						4.5
Surface Water Use	0	1 2 3	3	6	9	
Distance to a Sensitive Environment	0	1 2 3	2		6	
Population Served/Distance to Water Intake	0	4 6 8 10	1		40	
Downstream		12 16 18 20 24 30 32 35 40				
Total Targets Score				6	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				1500	64,350	
7 Divide line 6 by 64,350 and multiply by 100				$S_{sw} = 10.91$		

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 <u>45</u>	1		45	5.1	
Data and Location:						
Sampling Protocol:						
If line 1 is 0, the $S_a = 0$. Enter on line 5 . If line 1 is 45, then proceed to line 2 .						
2 Waste Characteristics					5.2	
Reactivity and Incompatibility	<u>0</u> 1 2 3	1		3		
Toxicity	0 1 2 <u>3</u>	3	9	9		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 <u>8</u>	1	8	8		
Total Waste Characteristics Score			17	20		
3 Targets					5.3	
Population Within 4-Mile Radius	0 9 12 15 18 21 24 <u>27</u> 30	1	27 30	30		
Distance to Sensitive Environment	<u>0</u> 1 2 3	2	0	6		
Land Use	0 1 2 <u>3</u>	1	3	3		
Total Targets Score			30	39		
4 Multiply 1 x 2 x 3			22950	25,100		
5 Divide line 4 by 35,100 and multiply by 100					$S_a = \frac{22950}{35,100} \times 100 = 65.38$	

FIGURE 9
AIR ROUTE WORK SHEET

	S	S ²
Groundwater Route Score (S _{gw})	0	0
Surface Water Route Score (S _{sw})	10.48	110.05
Air Route Score (S _a)	65.38 31.92	4274.54 5172.63
$S_{gw}^2 + S_{sw}^2 + S_a^2$		4393.57 5204.52
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		66.28 72.14
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		38.31 40.05

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet													
Rating Factor	Assigned Value (Circle One)				Multi- plier	Score	Max. Score	Ref. (Section)					
1 Containment	1	3			1		3	7.1					
2 Waste Characteristics								7.2					
Direct Evidence	0	3			1		3						
Ignitability	0	1	2	3	1		3						
Reactivity	0	1	2	3	1		3						
Incompatibility	0	1	2	3	1		3						
Hazardous Waste Quantity	0	1	2	3	4	5	6	7	8	1		8	
Total Waste Characteristics Score							20						
3 Targets								7.3					
Distance to Nearest Population	0	1	2	3	4	5		1	5				
Distance to Nearest Building	0	1	2	3				1	3				
Distance to Sensitive Environment	0	1	2	3				1	3				
Land Use	0	1	2	3				1	3				
Population Within 2-Mile Radius	0	1	2	3	4	5		1	5				
Buildings Within 2-Mile Radius	0	1	2	3	4	5		1	5				
Total Targets Score							24						
4 Multiply 1 x 2 x 3							1,440						
5 Divide line 4 by 1,440 and multiply by 100						SFE = 0							

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Incident	0 45	1		45	8.1	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	0 1 2 3	1	3	3	8.2	
3 Containment	0 15	1	15	15	8.3	
4 Waste Characteristics Toxicity	0 1 2 3	5	15	15	8.4	
5 Targets					8.5	
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	16	20		
Distance to a Critical Habitat	0 1 2 3	4	0	12		
Total Targets Score			16	32		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			10800	21,600		
7 Divide line 6 by 21,600 and multiply by 100			SDC = 50%			

FIGURE 12
DIRECT CONTACT WORK SHEET

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME:

Harbour Island Lead

LOCATION:

Harbour Island, Seattle, WA

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Lead (PSAPCA files)

Rationale for attributing the contaminants to the facility:

*Facility is lead-and battery recycler.
Distribution of lead in dust shows marked gradient away
from RSR (PSAPCA files)*

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

None, Not used. Almost at sea level on artificial island.

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

Probably < 20 feet to ground water.

Depth from the ground surface to the lowest point of waste disposal/
storage:

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

Nov-April = 29.59"

Mean annual lake or seasonal evaporation (list months for seasonal):

Nov-April = 5.52"

Net precipitation (subtract the above figures):

24.05"

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Sand and silt (Artificial fill)

Permeability associated with soil type:

$10^{-3} - 10^{-5}$

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

dust

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

None - surface dust

Method with highest score:

As above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Lead

Compound with highest score:

Lead

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Area of Harbour Island = 183 acres approx.

More than half is paved, remainder \geq 40 acres.

Soils fail EPA EP toxicity test - contain up to 18% lead in - 200 mesh fr

Top six inches on 40 acres \equiv 3228.4 cu yds

Basis of estimating and/or computing waste quantity:

Area of severely contaminated soil failing EP-Toxicity test - estimate only but certainly greatly in excess of 2500 tons.

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

None

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

None

Distance to above well or building:

None

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

None

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

None

Total population served by ground water within a 3-mile radius:

C.

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

*High level of lead in sediments opposite storm drain
discharge points draining Harbour Island (John Roberts PSC/CI)*

Rationale for attributing the contaminants to the facility:

*Contamination corresponds to drainage from area
contaminated by facility.*

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

<2%

Name/description of nearest downslope surface water:

Dunsmuir River and Elliot Bay

Average slope of terrain between facility and above-cited surface water body in percent:

<2%

Is the facility located either totally or partially in surface water?

No

Is the facility completely surrounded by areas of higher elevation?

No

1-Year 24-Hour Rainfall in Inches

1.8 (50% of 211.5 inches per year) NOAA Atlas 2

Distance to Nearest Downslope Surface Water

Immediately adjacent.

Physical State of Waste

Dust

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

None

Method with highest score:

As above.

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Lead

Compound with highest score:

Lead

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

>30,000 cu yds.

Basis of estimating and/or computing waste quantity:

Area contaminated and assumption of 6" soil contaminated to level where it is hazardous waste as defined by RCRA.

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Commercial, & recreational boating & fishing.

Is there tidal influence?

Yes

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

None

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

None

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

None

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

None

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

None

Total population served:

None

Name/description of nearest of above water bodies:

Duwamish River, Elliott Bay

Distance to above-cited intakes, measured in stream miles.

—

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

Lead

Date and location of detection of contaminants

1977-present hi vol - every six days.

K60. PSAPCA station

K71 ATL TEXACO 1980-present
7.42 µg/cum

(John Roberts personal
PSAPCA communication
8/13/82)

Methods used to detect the contaminants:

Hi-vol Standard EPA

Rationale for attributing the contaminants to the site:

*Concentric distribution of lead dust around facility
Blood lead levels in nearby workers*

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

No

Most incompatible pair of compounds:

None

Toxicity

Most toxic compound:

Lead

Hazardous Waste Quantity

Total quantity of hazardous waste:

>10,000 acyls

Basis of estimating and/or computing waste quantity:

Area contaminated

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi	0 to 1 mi	0 to 1/2 mi	0 to 1/4 mi
<i>>10000</i>	<i>>10000</i>	<i>6000</i>	<i>>3000</i>

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

—

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

—

11.8 Harbor Island (Lead), Seattle, Washington

11.8.1 List of Commenters

NPL-199 H.P. Hime, Chief Chemist, Technical Services
Department, RSR Corporation. 2/25/83.

11.8.2 Summary of Comments and Response

The commenter commented principally that the quantity of hazardous waste was overstated and should have been scored a 4 rather than an 8. The data have been reviewed and the value of 8 is appropriate for 3716 tons of hazardous material. The calculations used to derive this figure differ from those proposed by the commenter in that:

- o a soil density of 1.8 g/cc used to convert volume to mass is more appropriate than the 1 ton = 1 cubic yard rule of thumb used by the commenter
- o the commenter did not consider the total quantity of hazardous waste (fly-ash containing 35 percent lead). Instead, the quantity of lead alone was used. This is not in accordance with the HRS. As explained in Part VII of the preamble to the final NPL, waste quantity includes all waste deposited at a site, not just the quantity of hazardous constituents in the waste. As the waste was deposited in the form of flyash, the appropriate waste quantity is the quantity of flyash.
- o the depth of contamination is six inches rather than the three inches proposed by the commenter. The contamination is confirmed to the 6 inch depth.
- o most current data show the average lead content in the soil to be 3.4 percent as opposed to the 1.35 percent suggested by the commenter.

The total acreage over which the waste was deposited is changed from 40 acres used by the original scorer to 31.26 acres on the basis of data presented by the commenter. This change is

reflected in the waste quantity calculation.

The commenter assigned the toxicity/persistence of lead a 15 rather than an 18, and the toxicity of lead by the air and direct contact routes a 2 rather than a 3. The correct values are 18 and 3 according to HRS scoring instructions.

The commenter assigned the depth to aquifer of concern for the ground water route 0 because the ground water is not used. In response, lack of usage is irrelevant to the depth factor and is accounted for in the usage factor. The depth is nearly 0 feet and the correct value is a 3.

The commenter assigned the target population by the air route a 27 rather than 30. Agency review of current information from the Puget Sound Air Pollution Control Agency indicates that the population potentially exposed within 1/4 mile is 2500 persons; therefore, the correct value is now 24.

The commenter proposed revised scores for the fire and explosion worksheet and the direct contact worksheet. The total site score and the site's eligibility for inclusion on the National Priority List is based solely on the ground water, surface water, and air routes of exposure, and does not consider the direct contact and fire and explosion pathways. However, the comments have been taken under consideration. The commenter changed the fire and explosion route from 0 to 5.83. However, in accordance with Section 7.0 of 47 FR 31239, the fire and explosion route is scored only when

the site has been certified by a fire marshall as presenting a significant threat or there is a demonstrated threat based on field observations. The correct value is therefore 0. The direct contact route was changed from 50 to 22.22 by the commenter, who stated that no documentation exists for the observed incident. EPA references documented cases of elevated lead levels in worker's children and families. The direct contact route score, therefore, is 50.00.

The original HRS score for this facility was 41.79. Based on the changes noted above, the HRS scores for Harbor Island Lead are:

Ground Water	0
Surface Water	10.91
Air	58.85
Total	34.60

ADJUSTED FINAL

Enclosure #4.

ENTERED AUG 12 1983

10WA008

Facility name:	Harbor Island Lead		
Location:	Harbor Island, Seattle, WA		
EPA Region:	10		
Person(s) in charge of the facility:	As above		
Name of Reviewer:	H. Aldis	Date:	8/2/82
General description of the facility:			
(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination routes of major concern; types of information needed for rating; agency action, etc.)			
Lead battery recycling plant on the island. Very heavy accumulation of lead in soils and dust on the plant site resulted in lead run off into surface water. percolation into unused ground-water and dust in ambient air with resultant exposure to some 6000 workers in a heavily industrial area.			
Scores: $S_M = 34.6$, $S_{FW} = 0$, $S_{SW} = 12.9$, $S_a = 50.5$, $S_M = 34.60$ $S_{FE} = 0$ $S_{DC} = 50\%$			

Updated scores

FIGURE 1
HRS COVER SHEET

ENTERED AUG 12 1983

IOWA 008

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. Section	
1 Observed Release	0	45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 2 . If observed release is given a score of 0, proceed to line 3 .						
2 Route Characteristics						3.2
Depth to Aquifer of Concern	0 1 2 3	2	6	3		
Net Precipitation	0 1 2 3	1	3	3		
Permeability of the Unsaturated Zone	0 1 2 3	1	2	3		
Physical State	3 1 2 3	1	2	3		
Total Route Characteristics Score			13	15		
3 Containment	0 1 2 3	1	3	3		3.3
4 Waste Characteristics						3.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8		
Total Waste Characteristics Score			26	26		
5 Targets						3.5
Ground Water Use	0 1 2 3	2	0	6		
Distance to Nearest Well/Population Served	0 4 8 12 16 20 12 16 20 24 28 32	1	0	32		
Total Targets Score			0	32		
6 If line 1 is 45, multiply 2 x 3 x 4 x 5			C			
If line 1 is 0, multiply 2 x 3 x 4 x 5			C		57,000	
7 Divide line 6 by 57,000 and multiply by 100			S _{gw} = 0			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

ENTERED AUG 12 1983

LOWA008

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. Section
1 Observed Release	0	45	1	45	45	4.1
If observed release is given a value of 45, proceed to line 2.						
If observed release is given a value of 0, proceed to line 2.						
2 Route Characteristics						4.2
Facility Slope and intervening Terrain	0	1	2	3	1	3
1-yr. 24-hr. Rainfall	0	1	2	3	1	3
Distance to Nearest Surface Water	0	1	2	3	2	6
Physical State	0	1	2	3	1	3
Total Route Characteristics Score				—	15	
3 Containment	0	1	2	3	1	3
4 Waste Characteristics						4.4
Toxicity/Persistence	0	3	6	9	12	15
Hazardous Waste Quantity	0	1	2	3	4	5
Total Waste Characteristics Score				26	25	
4 Targets						4.3
Surface Water Use	0	1	2	3	3	9
Distance to a Sensitive Environment	0	1	2	3	2	6
Population Served/Distance to Water Intake Downstream	0	4	8	12	16	20
Total Targets Score				6	15	
5 If line 1 is 45, multiply 1 x 2 x 3					7620	34,350
6 If line 1 is 0, multiply 2 x 3 x 4 x 5						
7 Divide line 5 by 34,350 and multiply by 100					S _{SW} =	10.91

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

ENTERED AUG 12 1983

10WAC08

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Per. Section	
1 Observed Release	0 <u>45</u>	1		45	5.1	
Date and Location:						
Sampling Protocol:						
If line 1 is 0, the $S_1 = 2$. Enter on line 3 . If line 1 is 45, then proceed to line 2 .						
2 Waste Characteristics					5.2	
Reactivity and Incompatibility	<u>0</u> 1 2 3	1	<u>0</u>	3		
Toxicity	0 1 2 <u>3</u>	3	<u>9</u>	9		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 <u>8</u>	1	<u>8</u>	8		
Total Waste Characteristics Score			<u>17</u>	20		
3 Targets					5.3	
Population Within 4-Mile Radius	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 <u>0</u> 1 2 3	1	<u>24</u>	30		
Distance to Sensitive Environment	<u>0</u> 1 2 3	2	<u>0</u>	6		
Land Use	0 1 2 <u>3</u>	1	<u>3</u>	3		
Total Targets Score			<u>27</u>	39		
4 Multiply 1 x 2 x 3			<u>20655</u>	25,000		
5 Divide line 4 by 25,000 and multiply by 100			$S_1 =$ <u>58.85</u>			

FIGURE 9
AIR ROUTE WORK SHEET

ENTERED AUG 12 1983

10WAC08

	s	s ²
Groundwater Route Score (S _{gw})	0	0
Surface Water Route Score (S _{sw})	10.91	119.03
Air Route Score (S _a)	58.85	3463.32
$s_{gw}^2 + s_{sw}^2 + s_a^2$		3582.35
$\sqrt{s_{gw}^2 + s_{sw}^2 + s_a^2}$		59.85
$\sqrt{s_{gw}^2 + s_{sw}^2 + s_a^2} / 1.73 = S_M$		34.60

FIGURE 10
WORKSHEET FOR COMPUTING S_M

ENTERED AUG 1 2 1983

10WA008

Fire and Explosion Work Sheet												
Rating Factor	Assigned Value (Circle One)								Multi-plier	Score	Max. Score	Per. Section
1 Containment	1		3						1	-	3	7.1
2 Waste Characteristics												7.2
Direct Evidence	0		3						1		3	
Ignitability	0	1	2	3					1		3	
Reactivity	0	1	2	3					1		3	
Incompatibility	0	1	2	3					1		3	
Hazardous Waste Quantity	0	1	2	3	4	5	6	7	8	1	8	
Total Waste Characteristics Score										-	20	-
3 Targets												7.3
Distance to Nearest Population	0	1	2	3	4	5			1		5	
Distance to Nearest Building	0	1	2	3					1		3	
Distance to Sensitive Environment	0	1	2	3					1		3	
Land Use	0	1	2	3					1		3	
Population Within 2-Mile Radius	0	1	2	3	4	5			1		5	
Buildings Within 2-Mile Radius	0	1	2	3	4	5			1		5	
Total Targets Score											24	
4 Multiv	1	x	2	x	3						1,440	
5 Divide line 13	by 1,440 and multiv by 100										5.5 =	0

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

ENTERED AUG 12 1983

LOWA008

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Incident	0 <u>45</u>	1	45	45	3.1	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	0 1 2 3	1	—	3	3.2	
3 Containment	0 15	1	—	15	3.3	
4 Waste Characteristics Toxicity	0 1 2 <u>3</u>	5	15	15	3.4	
4 Targets					3.5	
Population Within a 1-Mile Radius.	0 1 2 3 <u>4</u> 5	4	16	20		
Distance to a Critical Habitat	<u>0</u> 1 2 3	4	0	12		
Total Targets Score			16	22		
5 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			10800	21,500		
7 Divide line 5 by 21,500 and multiply by 100			Scd = 50.00			

FIGURE 12
DIRECT CONTACT WORK SHEET

June 23, 1982

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: Harbor Island Lead

LOCATION: Harbor Island, Seattle, Washington

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

Rationale for attributing the contaminants to the facility:

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

Not named, Not used. Almost at sea level on artificial island.

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

Probably less than 20 feet to ground water.

Depth from the ground surface to the lowest point of waste disposal/storage:

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

November-April=29.57"

Mean annual lake or seasonal evaporation (list months for seasonal):

November-April=5.52"

Net precipitation (subtract the above figures):

24.05"

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Sand and silt (Artificial fill)

Permeability associated with soil type:

10^{-3} - 10^{-5}

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Dust

Powderlike Score=2

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

None- Surface dust

Method with highest score:

As above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Lead

Compound with highest score:

Lead

Toxicity "3" 4th Edition SAX
Persistence "3" NFPA Volume 13
Matrix "18"

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

per Fred Austin, PSAPCA, May '83-

- latest average concentration of lead in soil is 3.4% and found contamination 6" deep use acreage provided by RSR in comment 31.26 acres (instead of 40.0)

continued 4B

Basis of estimating and/or computing waste quantity:

per RSAPCA emissions of Pb in particulate
greater than or equal to 35% of total particulate, there fore waste
generated less than or equal to 100/35 times amount of lead found
in soil, so can use a factor of 100/35 and this is conservative
per Jack Sceva, EPA, Region 10 geologist,
density of soil 112.38 lb/ft³

$$(31.26) (43560) \left(\frac{3.4}{100} \right) \left(\frac{100}{35} \right) (112.38) \left(\frac{1}{2} \right) \left(\frac{T}{2000} \right) = 3716.35 \text{ tons}$$

Score = 8

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

None

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

None

Distance to above well or building:

None

Population Served by Ground Water Wells Within a 3-Mile Radius.

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

None

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

None

Total population served by ground water within a 3-mile radius:

0

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

High levels of lead in sediments opposite storm drain (Lander Street) discharge points draining Harbour Island (John Roberts PSAPCA)

Ave conc: 2700 mg-1/kg dry sediment Max conc: 8530 mg-1/kg dry sediment
Tom Hubbard, City of Seattle, METRO (206) 447-6891

Rationale for attributing the contaminants to the facility:

Contamination corresponds to damage from area contaminated by facility. The contents of the storm drains run directly into the Duwamish River.

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Less than 2%

Name/description of nearest downslope surface water:

Duwamish River and Elliot Bay

Average slope of terrain between facility and above-cited surface water body in percent:

Less than 2%

Is the facility located either totally or partially in surface water?

Yes Harbor Island is a man made island in the mouth of the Duwamish River.

Is the facility completely surrounded by areas of higher elevation?

No

1-Year 24-Hour Rainfall in Inches

1.8" (20% of 2year 24hour Rainfall) NOAA Atlas Z

Distance to Nearest Downslope Surface Water

Immediately adjacent

Physical State of Waste

Dust

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

None

Method with highest score:

As Above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Lead

Compound with highest score:

Lead

Toxicity "3" 4th Edition SAX
Persistence "3" NFPA Vol: 13
Martix Value "18"

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

See page 4 & 4B (Hazardous Waste Quantity)

Basis of estimating and/or computing waste quantity:

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

and recreational boating and fishing

Ref. Jack Sceva, Senior Geologist Region X EPA
Seattle (206) 442-1641

Wallace C. Swofford, R.S., Seattle King County
Dept. of Public Health, Seattle (206) 587-2722

Is there tidal influence?

Yes

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

None

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

None

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

None

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

None

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

None

Total population served:

None

Name/description of nearest of above water bodies:

Duwamish River, Elliot Bay

Distance to above-cited intakes, measured in stream miles.

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

Lead

Date and location of detection of contaminants

1977- present hi vol.-every six days.

K60. PSAPCA station

K71. 79t Texaco 1980- present 7.42

Methods used to detect the contaminants:

Hi-vol Standard EPA

Rationale for attributing the contaminants to the site:

Concentric distribution of lead dust around facility

Blood lead levels in nearby workers

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

No

Most incompatible pair of compounds:

None

Toxicity

Most toxic compound:

Lead Toxicity "3" 4th Edition SAX

Hazardous Waste Quantity

Total quantity of hazardous waste:

See page 4 & 48 (Hazardous Waste Quantity)

Basis of estimating and/or computing waste quantity:

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi	0 to 1 mi	0 to 1/2 mi	0 to 1/4 mi
less than	less than		
10000	10000	6000	2500 workers

Ref. John Roberts, Source Test Engr.
PSAPCA

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Distance to critical habitat of an endangered species, if 1 mile or less:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Within commercial/industrial area

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

None

Distance to residential area, if 2 miles or less:

1/4-1/2 mile

Distance to agricultural land in production within past 5 years, if 1 mile or less:

None

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

None

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

None known.

11.8 Harbor Island (Lead), Seattle, Washington

11.8.1 List of Commenters

NPL-199 H.P. Hime, Chief Chemist, Technical Services
Department, RSR Corporation. 2/25/83.

11.8.2 Summary of Comments and Response

The commenter commented principally that the quantity of hazardous waste was overstated and should have been scored a 4 rather than an 8. The data have been reviewed and the value of 8 is appropriate for 3716 tons of hazardous material. The calculations used to derive this figure differ from those proposed by the commenter in that:

- o a soil density of 1.8 g/cc used to convert volume to mass is more appropriate than the 1 ton = 1 cubic yard rule of thumb used by the commenter
- o the commenter did not consider the total quantity of hazardous waste (fly-ash containing 35 percent lead). Instead, the quantity of lead alone was used. This is not in accordance with the HRS. As explained in Part VII of the preamble to the final NPL, waste quantity includes all waste deposited at a site, not just the quantity of hazardous constituents in the waste. As the waste was deposited in the form of flyash, the appropriate waste quantity is the quantity of flyash.
- o the depth of contamination is six inches rather than the three inches proposed by the commenter. The contamination is confirmed to the 6 inch depth.
- o most current data show the average lead content in the soil to be 3.4 percent as opposed to the 1.35 percent suggested by the commenter.

The total acreage over which the waste was deposited is changed from 40 acres used by the original scorer to 31.26 acres on the basis of data presented by the commenter. This change is

reflected in the waste quantity calculation.

The commenter assigned the toxicity/persistence of lead a 15 rather than an 18, and the toxicity of lead by the air and direct contact routes a 2 rather than a 3. The correct values are 18 and 3 according to HRS scoring instructions.

The commenter assigned the depth to aquifer of concern for the ground water route 0 because the ground water is not used. In response, lack of usage is irrelevant to the depth factor and is accounted for in the usage factor. The depth is nearly 0 feet and the correct value is a 3.

The commenter assigned the target population by the air route a 27 rather than 30. Agency review of current information from the Puget Sound Air Pollution Control Agency indicates that the population potentially exposed within 1/4 mile is 2500 persons; therefore, the correct value is now 24.

The commenter proposed revised scores for the fire and explosion worksheet and the direct contact worksheet. The total site score and the site's eligibility for inclusion on the National Priority List is based solely on the ground water, surface water, and air routes of exposure, and does not consider the direct contact and fire and explosion pathways. However, the comments have been taken under consideration. The commenter changed the fire and explosion route from 0 to 5.83. However, in accordance with Section 7.0 of 47 FR 31239, the fire and explosion route is scored only when

er Mead, Mead, Washington

.1 List of Commenters

- 139 J. V. Day, Vice President, Corporate
Environmental Affairs, Kaiser Aluminum and
Chemical Corporation. 2/14/83.
- 285 Donald W. Moos, Director, Department of Ecology,
State of Washington. 2/24/83.

.2 Summary of Comments and Response

State of Washington requested that this facility be
removed from the NPL since Kaiser Aluminum is financially capable of
dealing with the problem and has been actively working to resolve
ground water contamination. In response, CERCLA does not
evaluate the ability of a private party to clean-up a site as a
factor for determining priorities. As implemented by EPA, sites
are listed on the NPL according to whether they meet criteria
set forth in the National Contingency Plan, July 16, 1982. The
EPA evaluated the Kaiser Aluminum, Mead Works facility on the
basis of these criteria and has determined it eligible for inclusion
on the NPL. The ability of Kaiser Aluminum to respond to the
cleanup will be taken into account by EPA in determining the
appropriate actions for cleanup of the site.

Kaiser Aluminum and Chemical Corp. stated that the use of a
radius to describe population at risk from ground water
contamination is arbitrary and results in an incorrect score. Contam-
ination is claimed to be confined to a narrow band about 2.5 miles

the site has been certified by a fire marshall as presenting a significant threat or there is a demonstrated threat based on field observations. The correct value is therefore 0. The direct contact route was changed from 50 to 22.22 by the commenter, who stated that no documentation exists for the observed incident. EPA references documented cases of elevated lead levels in worker's children and families. The direct contact route score, therefore, is 50.00.

The original HRS score for this facility was 41.79. Based on the changes noted above, the HRS scores for Harbor Island Lead are:

Ground Water	0
Surface Water	10.91
Air	58.85
Total	34.60

Facility name:	Harbor Island		
Location:	Seattle, Washington		
EPA Region:	10		
Person(s) in charge of the facility:	Numerous industries, the Port of Seattle, and the City of Seattle		
Name of Reviewer:	RSR Corporation	Date:	February 1983
General description of the facility:			
(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)			
The island is an industrial community of numerous contaminate			
(including lead)* sources. Heavy industrial uses of this man			
made island over its years of existence (since 1896) has			
resulted in the surface soils being contaminated. Dusting			
from unpaved areas and industrial sources has resulted in			
exceedances of ambient air contaminate standards.			
Scores: $S_M = 22.70$ $(S_{gw} = 0)$ $S_{sw} = 7.97$ $S_a = 38.46$			
$S_{FE} = 5.83$			
$S_{DC} = 22.22$			

FIGURE 1
HRS COVER SHEET

BILLING CODE 6560-50-C

* Lead is the only contaminate evaluated herein.

0000025

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 45	1	0	45	3.1	
If observed release is given a score of 45, proceed to line 4 . If observed release is given a score of 0, proceed to line 2 .						
2 Route Characteristics					3.2	
Depth to Aquifer of Concern	0 1 2 3	2	0	6		
Net Precipitation	0 1 2 3	1	3	3		
Permeability of the Unsaturated Zone	0 1 2 3	1	2	3		
Physical State	0 1 2 3	1	2	3		
Total Route Characteristics Score			7	15		
3 Containment	0 1 2 3	1	3	3	3.3	
4 Waste Characteristics					3.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1	15	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	4	8		
Total Waste Characteristics Score			19	26		
5 Targets					3.5	
Ground Water Use	0 1 2 3	3	0	9		
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40		
Total Targets Score			0	49		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	57,330		
7 Divide line 6 by 57,330 and multiply by 100			S _{gw} = 0			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

0000026

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 45	1	45	45	4.1	
If observed release is given a value of 45, proceed to line 4 .						
If observed release is given a value of 0, proceed to line 2 .						
2 Route Characteristics					4.2	
Facility Slope and Intervening Terrain	0 1 2 3	1		3		
1-yr. 24-hr. Rainfall	0 1 2 3	1		3		
Distance to Nearest Surface Water	0 1 2 3	2		6		
Physical State	0 1 2 3	1		3		
Total Route Characteristics Score			X	15		
3 Containment	0 1 2 3	1	X	3	4.3	
4 Waste Characteristics					4.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1	15	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	4	8		
Total Waste Characteristics Score			19	26		
5 Targets					4.5	
Surface Water Use	0 1 2 3	3	6	9		
Distance to a Sensitive Environment	0 1 2 3	2	0	6		
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40		
Total Targets Score			6	55		
6 If line 1 is 45, multiply 1 x 4 x 5			5130			
If line 1 is 0, multiply 2 x 3 x 4 x 5				64,350		
7 Divide line 6 by 84,350 and multiply by 100			S _{SW} = 7.97			

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

0000027

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 45	1	45	45	5.1	
Date and Location: PSAPCA stations K-60 and K-71						
Sampling Protocol: EPA Standard Hi-Vol						
If line 1 is 0, the $S_a = 0$. Enter on line 5 . If line 1 is 45, then proceed to line 2 .						
2 Waste Characteristics					5.2	
Reactivity and Incompatibility	0 1 2 3	1	0	3		
Toxicity	0 1 2 3	3	6	9		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	4	8		
Total Waste Characteristics Score			10	20		
3 Targets					5.3	
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1	27	30		
Distance to Sensitive Environment	0 1 2 3	2	0	6		
Land Use	0 1 2 3	1	3	3		
Total Targets Score			30	39		
4 Multiply 1 x 2 x 3			13,500	35,100		
5 Divide line 4 by 35,100 and multiply by 100			$S_a = 38.46$			

FIGURE 9
AIR ROUTE WORK SHEET

BILLING CODE 6540-50-C

0000023

	S	S ²
Groundwater Route Score (S _{gw})	0	0
Surface Water Route Score (S _{sw})	7.97	63.52
Air Route Score (S _a)	38.46	1479.17
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1542.69
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		39.28
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M$		22.70

FIGURE 10
WORKSHEET FOR COMPUTING S_M

0000028

Fire and Explosion Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Containment	1 3	1	1	3	7.1	
2 Waste Characteristics					7.2	
Direct Evidence	0 3	1	0	3		
Ignitability	0 1 2 3	1	0	3		
Reactivity	0 1 2 3	1	0	3		
Incompatibility	0 1 2 3	1	0	3		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	4	8		
Total Waste Characteristics Score			4	20		
3 Targets					7.3	
Distance to Nearest Population	0 1 2 3 4 5	1	5	5		
Distance to Nearest Building	0 1 2 3	1	3	3		
Distance to Sensitive Environment	0 1 2 3	1	0	3		
Land Use	0 1 2 3	1	3	3		
Population Within 2-Mile Radius	0 1 2 3 4 5	1	5	5		
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1	5	5		
Total Targets Score			21	24		
4 Multiply 1 x 2 x 3			84	1,440		
5 Divide line 4 by 1,440 and multiply by 100			SFE = 5.83			

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Incident	0 45	1	0	45	8.1	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	0 1 2 3	1	2	3	8.2	
3 Containment	0 15	1	15	15	8.3	
4 Waste Characteristics Toxicity	0 1 2 3	5	10	15	8.4	
5 Targets					8.5	
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	16	20		
Distance to a Critical Habitat	0 1 2 3	4	0	12		
Total Targets Score			16	32		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			4800	21,600		
7 Divide line 6 by 21,600 and multiply by 100			SDC = 22.22			

FIGURE 12
DIRECT CONTACT WORK SHEET

BILLING CODE 6560-60-C

0000031



January 19, 1983

Fed Exp # 303884755

John Hamill, Esq.
Office of Regional Counsel
U. S. Environmental Protection Agency
1200 - 6th Avenue, M/S 613
Seattle, Washington 98101

Re: Request for Information Regarding the Determination and Classification of Harbor Island as an EPA "Superfund Site"

Dear Mr. Hamill:

The EPA Region X public record concerning the classification of Harbor Island as an EPA "Superfund Site" contains statements which indicate the below requested data and information were used to make the determinations which resulted in Harbor Island being classified as an EPA "Superfund Site". Review of the requested information and data are required by RSR such that RSR Corporation may determine if comments, as solicited by FR 58476 through FR 58480, are appropriate.

As applicable under the Freedom of Information Act, please accept this letter as a formal request by RSR Corporation on behalf of its subsidiary, Quemetco, Inc., for copies of the following information:

1. Data to show whether lead in the soil of Harbor Island is below or above the EPA EP Toxicity test limits; this data should include complete protocol data as specified in EPA publication SW-846;
2. Data to show that EPA's assumption that the contamination of soil at the six inch level all over the island is valid,
3. Data to show that Harbor Island workers, at facilities other than Quemetco, have elevated blood lead levels,
4. Aerial photographs of Harbor Island taken during the early years of industrial development of Harbor Island;
5. Data to show that lead on and around Harbor Island is lead that originated from air emissions at Quemetco and not from scrap yards, gasoline storage, and/or lead users, e.g., ship yards;
6. Data to show that there is a health hazard on Harbor Island sufficient to place the Island on the Superfund List;

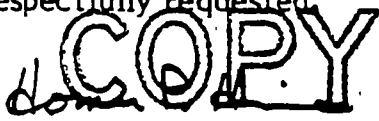
0000032

7. Data to show that workers everywhere on Harbor Island are exposed to levels of lead above the 1.5 ug/m^3 level averaged over a calendar quarter;
8. Data to show how the population effected by Harbor Island is determined.

Hopefully, the requested information will be supplied to RSR in a timely manner such that RSR may file comments that are due by February 28, 1983.

If you have questions regarding this request or require clarification of this request, please do not hesitate to contact me at 214-631-6070.

Respectfully requested,


Homer P. Hine
Chief Chemist
Technical Services Department
RSR Corporation

0000033

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

January 24, 1983



RECEIVED

JAN 26 1983

BY
RSR CORPORATION
TECHNICAL SERVICES DEPARTMENT

REPLY TO
ATTN OF: Mail Stop 613

Mr. Homer P. Hine
7111 West Mockingbird Lane
Dallas, Texas 75247

Re: Letter Dated 1-19-83
Freedom of Information No. 10-RIN- 19-83/1

Dear Mr. Hine:

Your letter cited above was received by the Environmental Protection Agency (EPA), Region 10 on 1-21-83.

I have taken the following indicated action(s) with respect to that letter:

1. Determined that your cited FOIA request is not presently in proper form. On the reverse hereof, or in the attached, are comments indicating the necessary corrective actions for your request. The response period is suspended until your request is properly refined and submitted.
2. Determined that in part the letter asks questions or requests responses, comments, or explanations, which do not constitute a request for existing documents/records, and those non-FOIA matters will not be processed under FOIA procedures.
- X 3. Asked the following office to see whether or not we have any such documents, and to respond to you: Air & Hazardous Waste Division
- X 4. Established the normal deadline date for mailing to you a response letter, and that date is 2-4-83.

Enclosed is an Information Sheet which outlines the FOIA procedures currently followed in Region 10. Please read it carefully in connection with your cited letter.

Sincerely,

John A. Hamill
Freedom of Information Officer
EPA Region 10

Enclosure

cc: (w/out encls)
A. Smith/P. Dooley

0000034

INFORMATION SHEET
EPA REGION 10
FREEDOM OF INFORMATION ACT PROCEDURES

Region 10 has an officially designated Freedom of Information Act (FOIA) Officer. That person is designated pursuant to EPA Order 1550.1C dated August 23, 1978.

The Freedom of Information (FOI) Officer's function in Region 10 is to serve as a "clearinghouse" for incoming written FOIA requests (which are governed by the FOIA, 5 U.S.C. §552 and EPA regulations, 40 C.F.R. Part 2, Subpart A). The FOI functions are limited to processing requests for records and do not include responding to general inquiries or questions.

Only requests for records are governed by the FOIA. Requests for answers to questions, for comments, and for explanations, etc. are not governed by the statute. In this respect, the word "information" in the title of the FOIA can be misleading to persons making inquiries. The FOI Office will disregard all portions of inquiries that are not strictly limited to requests for documents. Also, there is no statutory deadline for EPA offices or officials to meet in making response to inquiries which are outside the FOIA. Accordingly, inquirers must recognize that questions and requests for comment, explanations, etc., should be submitted separately from FOIA requests, and will not be processed under FOIA procedures. They will be disregarded when they are combined with an FOIA request.

"Continuing" requests, i.e., requests for records expected to come into existence in the future, are also not governed by the FOIA, and normally will not be honored. Instead, the inquirer must resubmit (if desired) the request at a later date.

One frequently misunderstood area relates to intra-agency and interagency written communications which constitute (or reflect) the Agency's policy or decision-making processes. Deliberative materials are exempted from compulsory disclosure for a variety of reasons, e.g., to enable government employees to solicit and provide candid uninhibited comments without fear of outside pressures and without fear that those individual comments may be later held to public scrutiny; to prevent the Agency as an institution from being improperly viewed as the putative sponsor of individual opinions or views; to prevent confusion concerning the ultimate reasons for Agency institutional action or inaction which can result from the disclosure of predecisional documents, etc. Because of the "chilling effects" on employee dialogue which can be created by disclosure of deliberative materials, this is the area in which the Agency is most likely to stand on its exemption privileges and decline to waive an exemption.

0000035

If all or part of an inquiry is in acceptable form under the FOIA, the inquirer will receive notice of the prospective date by which a further response from EPA will be mailed. If, from the request, it appears that many records must be culled, or that two or more components in the Agency will have a substantial subject-matter interest in connection with the records requested (which is frequently the case), the responding office or the FOI Officer may extend (up to 20 working days) the date for the response (which is normally 10 working days).

The office to which an FOIA request is assigned will estimate probable FOIA charges, and will request prepayment of those charges if they total more than ten dollars. Until such charges are paid, (or waived) the 10 working day time limit is suspended. Also, until such charges are paid (or waived), EPA is not required to do anything further to process the request.

In instances where a waiver or reduction of fees is requested, no processing of the request will occur until either a final decision is made on the waiver or reduction issue, or else the initially estimated fees are prepaid in full.

Normally, a final response to an FOIA request will be sent under the signature of the "responsible official." If that response includes a full or partial refusal to produce existing records, then that refusal may be appealed to the agencywide Freedom of Information Officer within 30 days of the receipt of the written refusal. The appeal address is "Freedom of Information Officer, A-101, 301 M Street, S.W., Washington, D.C. 20460."

Prior to an appeal, an inquirer may discuss an FOIA request with the Region 10 FOI Office. After any appeal, the matter should be discussed with the Washington, D. C. office. The current Seattle EPA phone number for the the Region 10 FOI Office is (206) 442-1275.

Publication Date:

0000036

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101



REPLY TO
ATTN OF: M/S 613

February 4, 1983

Homer P. Hine, Chief Chemist
RSR Corporation
1111 West Mockingbird Lane
Dallas, Texas 75247

Re: Your Request Dated. January 19, 1983
RIN No. 10-RIN-19-83/1

Dear Mr. Hine:

For the reasons indicated below, it has become necessary to extend the deadline date for mailing an initial determination letter responding to your cited request. The new deadline date by which a response is due to you is February 8, 1983.

The reasons for this extension are checked below:

- ☐ (a) There is a need to conduct a search in Region 10 Operations Offices to determine what, if any, documents may exist there which are within the purview of your request.
- ☐ (b) A large number of documents need to be searched for and/or examined to determine whether they contain material relevant to your request.
- ☒ (c) Consultation between at least two components of EPA will be required for any documents located because of a substantial interest in the subject matter.

Hopefully, a response will be forthcoming to you before this new deadline date.

Sincerely,

FOI Office, EPA Region 10

by:

bbc:

RECEIVED

FEB 09 1983

BY
RSR CORPORATION
TECHNICAL SERVICES DEPARTMENT

0000037

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101



REPLY TO
ATTN OF: Mail Stop 524

RECEIVED

FORM FOIA RESPONSE LETTER

FEB 11 1983

FEB 3 1983

Homer P. Hine, Chief Chemist
Technical Services Department
RSR Corporation
1111 West Mockingbird Lane
Dallas, Texas 75247

BY
RSR CORPORATION
TECHNICAL SERVICES DEPARTMENT

Re: Your letter Dated January 19, 1983
FOIA Request No.: 1-RIN - 19- 83/1

Dear Mr. Hine:

With respect to your subject letter, it has been received, duly considered, and examined (in particular) for a request for records pursuant to the Freedom of Information Act (FOIA). Please be advised of each of the matters checked below.

- A. ☐ Your letter cited above has been received and its contents have been duly noted. However, it did not contain any FOIA request for reasonably described records and will not be responded to or processed under the FOIA procedures.
- B. ☐ We cannot locate any records encompassed by your request and must conclude that no such records presently exist in the possession of this Agency.
- C. ☐ Enclosed are pages of records we have found which are encompassed by your request. FOIA charges for producing these records have already been collected or have been waived.
- D. ☐ EPA is not withholding as FOIA exempt any records (or portions thereof) encompassed by your request.
- E. ☐ Some records, or some material in the records, encompassed by your request are being withheld as exempt under one or more of the provisions of 5 U.S.C. §552(b) and 40 C.F.R. §2.118, but you will receive a separate letter on this point.
- F. ☒ If your cited letter contained (a) questions, or (b) requests for comments, explanations, advice, etc., or (c) comments by you concerning EPA, none of those matters will be processed under our FOIA procedures.

0000038

2.

G. _____ This Regional EPA office does possess some records encompassed by your request but we will not cull them out, or duplicate them or send them to you unless and until the estimated charges for those services are paid (or waived) as you have already been advised by separate letter.

H. _____ Because search charges have been paid (or waived), we have located and culled out approximately _____ pages or records which are encompassed by your request. Because those records are voluminous, they will not be photocopied and mailed, but instead are hereby made available for your inspection in Suite _____ of this Regional Office during normal working hours on or before (but not after) the _____ day of _____, at 442-_____ to arrange to inspect those records.

I. _____ The records you have requested are currently available to the general public at the following places, and will not copy or send them to you:

J. _____ This letter responds to only a portion of your request. The balance of your request is being processed by other EPA units.

K. .K Additional matters which you should be aware of are attached.

Sincerely,

Alexandra B. Smith, Director
Air & Waste Management Division

cc: FOI Office, M/S 613

0000039

Attachment

Most of the information you requested is included in "Airborne Lead-A Plan for Control," March 1980, by the Puget Sound Air Pollution Control Agency (PSAPCA) and the Washington State Department of Ecology. For a copy, write to:

Puget Sound Air Pollution Control Agency
410 West Harrison Street
P. O. Box 9863
Seattle, Washington 98109

The aerial photography is available by writing to:

Environmental Protection Agency
Environmental Monitoring Systems Laboratory
P. O. Box 15027
Las Vegas, Nevada 89114

Request the following:

- 1). EMSL-LV Project RSD 7650, Numbers 7650-180, 7650-168, and 7650-151, dated 7-15-76.
- 2). TS-AMD-82084, Figure 9, 6-11-82.
- 3). TS-AMD-82006 - June 1982:
 - a) Figure 8, 7-18-40
 - b) Figures 16 & 17, 8-7-61
 - c) Figure 26, 9-2-68
 - d) Figure 31, 6-12-74
 - e) Figure 39, 7-26-80

If you prefer, all of the above may be viewed (only) at the Regional Office in Seattle.

Any remaining questions which can be answered via an FOIA request are answered in the public docket, attached.

Attachments

0000040

Daten

Initials

Date

2

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

Dear Mr. Hine:

Enclosed is the attachment to the response we mailed to you on your request for information on Harbor Island. It was left out of the envelope by mistake.

FROM: (Name, org. symbol, Agency/Post)

Room No.—Bldg.

Phone No.

OPTIONAL FORM 41 (Rev. 7-76)

Prescribed by GSA
FPMR (41 CFR) 101-11.206

000041

HARBOR ISLAND
SEATTLE, WASHINGTON

The Situation:

High levels of lead have been measured in the ambient air and surface dust on Harbor Island, an industrial parcel of land at the mouth of Duwamish Waterway where it empties into Seattle's Elliott Bay. Air monitoring equipment has recorded concentrations of lead at levels several times the national standard established to protect human health. There is also concern that lead-laden dust and accumulations of lead in the Harbor Island soil has resulted in run-off of lead into nearby surface water and, by percolation, has caused lead to enter groundwater.

Work Done To Date:

The City of Seattle has paved areas where concentrations of airborne lead are the highest.

In addition, one industrial operation that is a source of airborne lead has instituted control measures to reduce fugitive lead-laden dust and emissions of lead from its industrial process.

What's Next?

The City of Seattle is committed to pave more surface areas of Harbor Island.

It must be determined to what extent, and in what relative degree of combination, the lead problems on Harbor Island are being caused by current emissions from one or more industrial sources as opposed to the re-suspension of the accumulations of lead in soil and dust on the surface of the island.

RECEIVED

FEB 14 1983

BY
RSR CORPORATION
TECHNICAL SERVICES DEPARTMENT

0000042

Harbor Island Lead
Seattle, Washington

High levels of lead have been measured in the surface dust on Harbor Island, an island in the Duwamish River in an industrial area of Seattle, Washington. Heavy accumulation of lead in soils and dust have resulted in lead run-off into the surface water, percolation of lead into unused groundwater, and lead exposure via ambient air for some 6000 workers in the immediate industrial area. Cases of elevated levels of lead in the blood of workers and workers' children are documented.

0000043

Facility name: Harbour Island Lead

Location: Harbour Island, Seattle, WA

EPA Region: 10

Person(s) in charge of the facility: As above

Name of Reviewer: H. Aldis

Date: 8/2/82

General description of the facility:

(For example: landfill, surface impoundment, pile, container, types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Lead battery recycling plant. Very heavy accumulation of lead in soils and dust on the plant site resulted in lead run off into surface water, percolation into unused ground-water and dust in ambient air with resultant exposure to some 6000 workers in a heavily industrial area.

Scores: $S_M = \frac{38.31}{100} (S_{SW} = 0)$

$S_{SW} = 10.97 S_A = \frac{65.38}{7.03}$

$S_A = \frac{38.31}{7.03}$

$S_{FE} = 0$

$S_{DC} = 50\%$

FIGURE 1
HRS COVER SHEET

0000044

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
[1] Observed Release	<u>0</u> 45	1		45	3.1	
If observed release is given a score of 45, proceed to line [4] . If observed release is given a score of 0, proceed to line [2] .						
[2] Route Characteristics					3.2	
Depth to Aquifer of Concern	0 1 2 3	2		6		
Net Precipitation	0 1 2 3	1		3		
Permeability of the Unsaturated Zone	0 1 2 3	1		3		
Physical State	0 1 2 3	1		3		
Total Route Characteristics Score				15		
[3] Containment	0 1 2 3	1		3	3.3	
[4] Waste Characteristics					3.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1		18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8		
Total Waste Characteristics Score				26		
[5] Targets					3.5	
Ground Water Use	<u>0</u> 1 2 3	3		9		
Distance to Nearest Well/Population Served	<u>0</u> 4 6 8 10 12 16 18 20 24 30 32 35 40	1		40		
Total Targets Score				<u>0</u> 49		
[6] If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]				57,330		
[7] Divide line [6] by 57,330 and multiply by 100				S _{gw} = <u>0</u>		

FIGURE 2
GROUND WATER ROUTE WORK SHEET

0000045

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 <u>45</u>	1	<u>45</u>	45	4.1	
If observed release is given a value of 45, proceed to line 4 . If observed release is given a value of 0, proceed to line 2 .						
2 Route Characteristics					4.2	
Facility Slope and Intervening Terrain	<u>0</u> 1 2 3	1	<u>0</u>	3		
1-yr. 24-hr. Rainfall	0 1 <u>2</u> 3	1	<u>2</u>	3		
Distance to Nearest Surface Water	0 1 2 <u>3</u>	2	<u>6</u>	6		
Physical State	0 1 <u>2</u> 3	1	<u>2</u>	3		
Total Route Characteristics Score			<u>10</u>	15		
3 Containment	0 1 2 3	1	<u>3</u>	3	4.3	
4 Waste Characteristics					4.4	
Toxicity/Persistence	0 3 6 9 12 15 <u>18</u>	1	<u>18</u>	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 <u>8</u>	1	<u>8</u>	8		
Total Waste Characteristics Score			<u>26</u>	28		
5 Targets					4.5	
Surface Water Use	0 1 <u>2</u> 3	3	<u>6</u>	9		
Distance to a Sensitive Environment	<u>0</u> 1 2 3	2		6		
Population Served/Distance to Water Intake	<u>0</u> 4 6 8 10	1		40		
Downstream	12 16 18 20 24 30 32 35 40					
Total Targets Score			<u>6</u>	55		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			<u>1020</u>	64,350		
7 Divide line 6 by 64,350 and multiply by 100			S _{sw} <u>10.98</u>			

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

0000046

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 (45)	1		45	5.1	
Date and Location:						
Sampling Protocol:						
If line 1 is 0, the $S_a = 0$. Enter on line 5 . If line 1 is 45, then proceed to line 2 .						
2 Waste Characteristics					5.2	
Reactivity and Incompatibility	(0) 1 2 3	1		3		
Toxicity	0 1 2 (3)	3	9	9		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 (8)	1	8	8		
Total Waste Characteristics Score			17	20		
3 Targets					5.3	
Population Within 4-Mile Radius	{ 0 9 12 15 18 21 24 (27) 30	1	27 30	30		
Distance to Sensitive Environment	(0) 1 2 3	2	0	6		
Land Use	0 1 2 (3)	1	3	3		
Total Targets Score			33 30	39		
4 Multiply 1 x 2 x 3			22,950	25,100 25,100		
5 Divide line 4 by 35,100 and multiply by 100			$S_a = \frac{22,950}{35,100} \times 100 = 65.38$			

FIGURE 9
AIR ROUTE WORK SHEET

0000047

	s	s ²
Groundwater Route Score (S _{gw})	0	0
Surface Water Route Score (S _{sw})	10.47	119.03
Air Route Score (S _a)	^{65.38} 31.92	^{4274.54} 5172.93
$S_{gw}^2 + S_{sw}^2 + S_a^2$		^{4393.57} 5291.52
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		^{66.28} 7279
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		^{38.31} 4205

FIGURE 10
WORKSHEET FOR COMPUTING S_M

0000048

Fire and Explosion Work Sheet													
Rating Factor	Assigned Value (Circle One)				Multi- plier	Score	Max. Score	Ref. (Section)					
1 Containment	1	3			1		3	7.1					
2 Waste Characteristics								7.2					
Direct Evidence	0	3			1		3						
Ignitability	0	1	2	3	1		3						
Reactivity	0	1	2	3	1		3						
Incompatibility	0	1	2	3	1		3						
Hazardous Waste Quantity	0	1	2	3	4	5	6	7	8	1	8		
Total Waste Characteristics Score							20						
3 Targets								7.3					
Distance to Nearest Population	0	1	2	3	4	5		1	5				
Distance to Nearest Building	0	1	2	3				1	3				
Distance to Sensitive Environment	0	1	2	3				1	3				
Land Use	0	1	2	3				1	3				
Population Within 2-Mile Radius	0	1	2	3	4	5		1	5				
Buildings Within 2-Mile Radius	0	1	2	3	4	5		1	5				
Total Targets Score							24						
4 Multiply 1 x 2 x 3							1,440						
5 Divide line 4 by 1,440 and multiply by 100						SFE = 0							

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

0000049

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Incident	0 <u>45</u>	1		45	8.1	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	0 1 2 <u>3</u>	1	<u>3</u>	3	8.2	
3 Containment	0 <u>15</u>	1	<u>15</u>	15	8.3	
4 Waste Characteristics Toxicity	0 1 2 <u>3</u>	5	<u>15</u>	15	8.4	
5 Targets					8.5	
Population Within a 1-Mile Radius	0 1 2 3 <u>4</u> 5	4	<u>16</u>	20		
Distance to a Critical Habitat	<u>0</u> 1 2 3	4	<u>0</u>	12		
Total Targets Score			<u>16</u>	32		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			<u>10800</u>	21,600		
7 Divide line 6 by 21,600 and multiply by 100			SOC = <u>50.2</u>			

FIGURE 12
DIRECT CONTACT WORK SHEET

0000050

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME:

Harbour Island Lead

LOCATION:

Harbour Island Seattle, Wa

0000051

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (3 maximum):

Lead (PSAPCA files)

Rationale for attributing the contaminants to the facility:

*Facility is lead-and battery recycler.
Distribution of lead in dust shows marked gradient away
from RSR (PSAPCA files)*

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

None, Not used. Almost at sea level on artificial island.

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

Probably < 20 feet to ground water.

Depth from the ground surface to the lowest point of waste disposal/storage:

0000052

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

Nov - April = 29.57"

Mean annual lake or seasonal evaporation (list months for seasonal):

Nov - April = 5.52"

Net precipitation (subtract the above figures):

24.05"

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Sand and silt (Artificial fill)

Permeability associated with soil type:

$10^{-3} - 10^{-5}$

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

dust

0000053

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

None - surface dust

Method with highest score:

As above

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Lead

Compound with highest score:

Lead

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Area of Harbour Island = 183 acres approx.

More than half is paved, remainder \geq 40 acres.

Soils fail EPA EP toxicity test - contain up to 18% lead in - 200 mesh fr

Top six inches on 40 acres = 3225.4 cu yds. lowest level found = 0.46 % = 400

Basis of estimating and/or computing waste quantity:

Area of severely contaminated soil failing EP-Toxicity test - estimate only but certainly pretty in excess of 2000 tons.

0000054

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

None

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

None

Distance to above well or building:

None

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

None

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

None

Total population served by ground water within a 3-mile radius:

C.

0000055

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

High levels of lead in sediments opposite storm drain discharge points draining Harbor Island (John Roberts PS&PCA)

Rationale for attributing the contaminants to the facility:

Contamination corresponds to drainage from area contaminated by facility.

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

<2%

Name/description of nearest downslope surface water:

Duaneauish River and Elliot Bay

Average slope of terrain between facility and above-cited surface water body in percent:

<2%

Is the facility located either totally or partially in surface water?

No

000-0056

Is the facility completely surrounded by areas of higher elevation?

No

1-Year 24-Hour Rainfall in Inches

1.8" (90% of 24R 24HR Rainfall) NOAA Atlas 2

Distance to Nearest Downslope Surface Water

Immediately adjacent.

Physical State of Waste

Dust

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

None

Method with highest score:

As above.

0000057

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Lead

Compound with highest score:

Lead

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

>30,000 cu yds.

Basis of estimating and/or computing waste quantity:

Area contaminated and assumption of 6" soil contaminated to level where it is hazardous waste as defined by RCRA.

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Commercial, & recreational boating & fishing.

0000058

Is there tidal influence?

Yes

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

None

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

None

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

None

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

None

0000059

Computation of land area irrigated by above-cited intake(s) and
conversion to population (1.5 people per acre):

None

Total population served:

None

Name/description of nearest of above water bodies:

Dauernish River, Elliott Bay

Distance to above-cited intakes, measured in stream miles.

—

0000060

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

Lead

Date and location of detection of contaminants

1977- present bi-ol - every six days.

K60. PSAPCA station

K71 TAT Texaco 1980-present

7.42 µg/µm

Methods used to detect the contaminants:

Hi-ool Standard EPA

*(John Roberts personal communication
PSAPCA
8/13/82)*

Rationale for attributing the contaminants to the site:

Concentric distribution of lead dust around facility

Blood lead levels in nearby workers

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

No

Most incompatible pair of compounds:

None

0000001

Toxicity

Most toxic compound:

Lead

Hazardous Waste Quantity

Total quantity of hazardous waste:

>10,000 ac yds

Basis of estimating and/or computing waste quantity:

Area contaminated

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi	0 to 1 mi	0 to 1/2 mi	0 to 1/4 mi
<i>>10000</i>	<i>>10000</i>	<i>6000</i>	<i>>3000</i>

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

—

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

—

001 0052

Distance to critical habitat of an endangered species, if 1 mile or less:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Within commercial/industrial area.

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

None

Distance to residential area, if 2 miles or less:

$\frac{1}{4}$ - $\frac{1}{2}$ mile

Distance to agricultural land in production within past 5 years, if 1 mile or less:

None

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

None

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

None known.

0000033